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APPLICATION NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO.
08/786,360	01/16/97	DELLACORTE	LEW#16183-1

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EXAMINER

TOOMER, C

ART UNIT	PAPER NUMBER
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1721

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DATE MAILED: 04/09/98

This is a communication from the examiner in charge of your application.
COMMISSIONER OF PATENTS AND TRADEMARKS

OFFICE ACTION SUMMARY

☒ Responsive to communication(s) filed on 1/14/98

☐ This action is FINAL.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 D.C. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

- ☒ Claim(s) 1, 5, 9-12 & 14-17 is/are pending in the application.
Of the above, claim(s) _____ is/are withdrawn from consideration.
☐ Claim(s) _____ is/are allowed.
☒ Claim(s) 1, 5, 9-12 & 14-17 is/are rejected.
☐ Claim(s) _____ is/are objected to.
☐ Claim(s) _____ are subject to restriction or election requirement.

Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
☐ The specification is objected to by the Examiner.
☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
☐ received.
☐ received in Application No. (Series Code/Serial Number) _____
☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

- ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- ☒ Notice of Reference Cited, PTO-892
☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____
☐ Interview Summary, PTO-413
☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
☐ Notice of Informal Patent Application, PTO-152

--SEE OFFICE ACTION ON THE FOLLOWING PAGES--

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DETAILED ACTION

This Office action is in response to the amendment filed January 14, 1998 in which claims 1, 5, 9, 12, 14, 15 and 16 were amended.

Claim Rejections - 35 USC § 112

1. Claims 1, 12, 16 and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1 and 12 still contain the term "essentially". The term should be deleted. See last line of claim 1 and the penultimate line of claim 12.

In order to keep the claim language consistent, the terms "metal binder" should read -- bonding metal --.

Claim 17 is rejected because there is no antecedent support in claim 12 for the recited proportions, i.e., 20-60 wt %.

Response to Amendment

2. The 112, first paragraph, is withdrawn in view of Applicant's amendment to the claims.

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Claim Rejections - 35 USC § 103

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 1, 5, 9-12 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Toyota Part (II) for the reasons of record.

5. Claims 1, 5, 9-12 and 14-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Toyota Part (I).

Toyota Part (I) teaches a self-lubricating composite comprising metal bonded chromium oxide with Ag and BaF₂ and CaF₂ additions. The bonding metal is Ni-Co-Cr-Al-Y alloy (see abstract). The proportions of the chromium oxide are taught by Toyota Part (I) (see Table I; page 1278, last paragraph bridging page 1279).

Toyota Part (I) teaches the limitations of the claims other than the proportions of the bonding metal, the Ag and the fluoride compounds. However, no unobviousness is seen in this difference because where the general conditions of a claim are disclosed in the prior art, it is not inventive to determine the optimum or workable ranges of these components through routine experimentation. In re Aller, 105 USPQ 233 (CCPA 1955).

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Response to Arguments

6. Applicant's arguments have been fully considered but they are not persuasive.
7. Applicant argues that the choice of the binder, the prefused fluorides and the proportions distinguish the instant claims from Toyota Parts (I&II).

Applicant has not shown neither in the specification nor in a declaration that the binder and the other components produce unexpected results. The examiner fails to see any unobviousness in the claimed proportions, and the claims contain no recitation that the fluoride compounds are "prefused".

8. Applicant argues that the "hysteresis phenomenon" which Toyota refers to is the chemical reaction of the aluminum in the bonding metal and fluoride compounds and that this reaction is detrimental to the durability of the solid lubricant and does not occur in the present invention because the bonding metal does not contain Al.

It is well settled that unexpected results must be established by factual evidence. Applicant has not presented any experimental data showing that the "hysteresis phenomenon" is detrimental to the durability of the solid lubricant. Due to the absence of tests comparing Applicant's self-lubricating composite with those of the prior art, it is the examiner conclusion that Applicant's assertions of unexpected results constitute mere arguments. In re Lindner, 173 USPQ 356 (CCPA 1972).

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9. Applicant argues that Toyota contains 80% by volume of the binder and that this amount of the binder does not allow for a sufficient amount of lubricants and thus provides inadequate lubrication and wear resistance.

It is well settled that where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation. In re Aller, 105 USPQ 233 (CCPA 1955).

10. Applicant argues that Toyota teaches a blend of fluoride powders whereas the present invention uses prefused and reground fluorides.

There is no recitation in the claims which sets forth these limitations. The present claims merely recite that at least one fluoride compound is present in the composition.

11. It should be noted that Attachment 3 has been considered but is not persuasive since the statements are conclusory statements unsupported by objective factual evidence. Furthermore, the examiner could not locate in the specification the upper and lower limits which Applicant recites are within the scope of the claimed invention.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cephia Toomer whose telephone number is (703) 308-2509.

cdt/08786360.3

April 7, 1998


Cephia D. Toomer

Patent Examiner-AU 1721